



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/537,750	06/06/2005	Terry Wayne Lockridge	PU020488	5462		
24498	7590	09/04/2009	EXAMINER			
Thomson Licensing LLC P.O. Box 5312 Two Independence Way PRINCETON, NJ 08543-5312				NGUYEN, MINH TRANG T		
ART UNIT		PAPER NUMBER				
2419						
MAIL DATE		DELIVERY MODE				
09/04/2009		PAPER				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/537,750	LOCKRIDGE ET AL.
	Examiner	Art Unit
	Minh-Trang Nguyen	2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04/28/2009.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 7-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 7-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Response to Arguments

1. Applicants' arguments filed 4/28/09 have been fully considered but they are not persuasive.

Applicants argue that Slattery et al does not appear to teach a device, as recited in claim 8, that "receives a signal that comprises a plurality of packets, at least a portion of the plurality of packets comprising an embedded time stamp" and "computes an adjusted time stamp based on the embedded timestamp and a precision local clock" let alone a device that "incorporates the adjusted timestamp into the at least a portion of the plurality of packets containing the embedded timestamp prior to transmitting the at least a portion of the plurality of packets to the network."

In response, Slattery et al disclose, at column 6, lines 16 through 20, that "[t]he transport packets also carry program clock references (PCRs) for each program, which are time stamps of an encoder system time clock to which the decoding and presentation of the respective program is synchronized." Thus, Slattery et al teach that a transport packets comprises an embedded time stamp, i.e., program clock reference (PCR) for each program.

Slattery et al disclose, at column 7, lines 50 through 62, that "[a] unique PCR normalization process is also provided. The processor schedules each transport packet to be outputted in a time slot at a particular dispatch time, corresponding to a predetermined delay in the remultiplexer node. If the scheduled transport packet contains a PCR, the PCR is adjusted based on a drift of the local reference clock(s) relative to the program of the system time clock from which the PCR was generated, if any drift exists. The data link control circuit, that transmits such adjusted PCR bearing transport packets, further adjust each adjusted PCR time

stamp based on a difference between the scheduled dispatch time of the transport packet and an actual time at which the time slot occurs relative to an external clock.” Thus, Slattery et al teach computing an adjusted time stamp based on the embedded timestamp and a precision local clock. The adjusted time stamp corresponds to “a drift of the local reference clock(s) relative to the program of the system time clock from which the PCR was generated”.

Slattery et al disclose incorporating the adjusted timestamp into the at least a portion of the plurality of packets containing the embedded timestamp prior to transmitting the at least a portion of the plurality of packets to the network.” at column 7, lines 50 through 62, and column 15, lines 50 through 60. For example, Slattery et al state, at col. 7, lines 57 through 62, that “[t]he data link control circuit, that transmits such adjusted PCR bearing transport packets, further adjust each adjusted PCR time stamp based on a difference between the scheduled dispatch time of the transport packet and an actual time at which the time slot occurs relative to an external clock.”

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 8-19** are rejected under 35 U.S.C. 102(b) as being anticipated by Slattery et al (Us 6,111,896).

Regarding **claim 8**, Slattery et al disclose a system for synchronizing clocks across a network, comprising:

a device (see Fig. 1, I/O device 29) that receives a signal that comprises a plurality of packets, at least a portion of the plurality of packets comprising an embedded time stamp (see col. 6, lines 16-20, col. 6, lines 31-35, and col. 7, lines 17-36, e.g., the descriptor is used to record the timestamp when the transport packet is received at the input port);

a device (see Fig. 1, remultiplexer 30) detects the at least a portion of the plurality of packets containing the embedded time stamp (see Fig. 1, remultiplexer 30, col. 7, lines 37-49, e.g., remultiplexer examines each descriptor); and

a device (see Fig. 2, processor 160) that computes an adjusted time stamp based on the embedded timestamp (see col. 7, lines 17-62) and a precision local clock (see Fig. 2, the REF clock 113, col. 14, lines 22-46) and incorporates the adjusted timestamp into the at least a portion of the plurality of packets containing the embedded timestamp prior to transmitting the at least a portion of the plurality of packets to the network (see col. 7, lines 50-62, col. 15, lines 50-60).

Regarding claim 9, Slattery et al disclose all mentioned limitation with respect to claim 8, and further disclose that the at least a portion of the packets are converted into Internet Protocol ("IP") packets prior to being transmitted to the network (see col. 42, line 47 to col. 43, line 3).

Regarding claim 10, Slattery et al disclose all mentioned limitation with respect to claim 8, and further disclose that each of the plurality of packets receive a localized timestamp based on the precision local clock regardless of whether they contain the embedded timestamp (see col. 15, lines 40-49).

Regarding claim 11, Slattery et al disclose all mentioned limitation with respect to claim 8, and further disclose that the network comprises a plurality of network set top boxes

("NSTBs") (see col. 13, lines 8-35).

Regarding **claim 12**, Slattery et al disclose all mentioned limitation with respect to claim 11, and further disclose that time synchronization data is sent to the NSTBs in a transport packet (see col. 13, lines 8-35, e.g., data extraction destination 60 receive TS, ES , or other data from the remultiplexer).

Regarding **claim 13**, Slattery et al disclose all mentioned limitation with respect to claim 12, and further disclose that each of the NSTBs is adapted to employ the transport packet to synchronize an internal clock to the embedded time stamps based on the time synchronization data (see col. 13, lines 8-17, e.g., the data injection sources supply TS, ES, or other data to the remultiplexer)..

Regarding **claim 14**, Slattery et al disclose all mentioned limitation with respect to claim 8, and further disclose that a normalized clock rate is computed from the embedded time stamp and the precision local clock (see col. 14, lines 25-46).

Regarding **claim 15**, Slattery et al disclose all mentioned limitation with respect to claim 8, and further disclose that a time adjustment factor is computed (see col. 14, lines 35-45).

Regarding **claim 16**, see similar rejection with respect to claim 8, Slattery et al further disclose a method for synchronizing clocks across a network, the method comprising the acts of: receiving a signal that comprises a plurality of packets (see col. 6, lines 31-35, e.g., the transport streams are received at input port), at least a portion of the plurality of packets comprising an embedded time stamp (see col. 6, lines 31-35, and col. 7, lines 17-36, e.g., the descriptor is used to record the timestamp when the transport packet is received at the input port);

detecting packets containing the embedded time stamp (**see Fig. 1, remultiplexer 30, col. 7, lines 37-49, e.g., remultiplexer examines each descriptor**);
computing an adjusted time stamp based on the embedded timestamp (**see col. 7, lines 17-62**) and a precision local clock (**see Fig. 2, the REF clock 113**);
incorporating the adjusted timestamp into the at least a portion of the plurality of packets containing the embedded timestamp (**see col. 7, lines 50-62, col. 15, lines 50-60**); and
transmitting the at least a portion of the plurality of packets to the network (**see col. 11, lines 25-47, col. 7, lines 50-62, col. 15, lines 50-60**).

Regarding **claim 17**, see similar rejection with respect to claim 9.

Regarding **claim 18**, see similar rejection with respect to claim 10.

Regarding **claim 19**, see similar rejection with respect to claim 11, 12.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Trang Nguyen whose telephone number is (571)270-5248. The examiner can normally be reached on Monday to Friday 7:30AM to 5:00PM EST, first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. N./
Examiner, Art Unit 2419

/Chirag G Shah/
Supervisory Patent Examiner, Art Unit 2419